Poster II-42

Data Mining in SCIgenes: The Spinal Cord Injury-Related Database

Shetty, Ranjit S.*, Jaromczyk, Jolanta W., Kadiyala, Murali M., McClintock, Timothy S.
Department of Physiology and Spinal Cord Brain Injury Research Center, University of Kentucky, Lexington, KY, USA

SCIgenes is a specialized and searchable database of information on genes whose products are affected by spinal cord injury, nerve injury, and processes involved in these types of injury, or by therapeutic interventions used for the treatment of these injuries. Each entry in SCIgenes brings together information about the sequence, function, response and the temporal characteristics of the response of the gene to spinal cord injury or nerve injury. The format and organization of SCIgenes provides users free and easy access to expression profiling data and allows comparison of data obtained by various techniques. SCIgenes supports data mining operations via several integrated search tools. These search tools include a search comparison tool and a temporal profile tool. These tools are designed to allow users to compile sets of gene entries that have common properties or have specific temporal patterns. Data mining in SCIgenes returns lists of genes that contain links to functional information, making it possible to investigate potential functional relationships between gene products that share responses to injury. SCIgenes is updated regularly, and users are encouraged to submit their own data at http://scigenes.uky.edu.

Supported by an award from the Kentucky Spinal Cord and Head Injury Research Trust.